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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

IC Docket No. 94-31

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In the Matter of

Preparation for International
Telecommunication Union World
Radiocommunication Conferences

REPLY COMMENTS OF ORBCOMM ON
THE SECOND NOTICE OF INQUIRY

Orbital Communications Corporation ("ORBCOMM"), a wholly-owned subsidiary of Orbital Sciences Corporation ("OSC"), hereby submits its brief reply comments addressing the issues raised in the Second Notice of Inquiry on the upcoming 1995 World Radiocommunication Conference ("WRC-95") and subsequent conferences.^{1/} In its initial comments in this proceeding, ORBCOMM had urged the Commission to adopt U.S. positions at WRC-95 that would improve spectrum availability and refine the ITU regulatory processes to ease international coordination of non-geostationary satellite systems. The comments of other Non-Voice, Non-Geostationary ("NVNG") mobile satellite systems reinforce ORBCOMM's proposals.

There was consensus, as reflected in the Report of the Industry Advisory Committee and the initial comments of other

1/ Preparation for International Telecommunication Union World Radiocommunication Conferences, IC Docket No. 94-31, FCC 95-36, released January 31, 1995 ("Second NOI").

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NVNG satellite services applicants, of a need for 7-10 MHz of additional spectrum below 1 GHz for NVNG satellite services.^{2/} Thus, ORBCOMM continues to urge the Commission to seek additional global allocations for NVNG satellite services at WRC-95, and upgrading of the WARC-92 allocations, including the secondary allocations in the 312-315 MHz and 387-390 MHz bands.^{3/} Likewise, ORBCOMM continues to recommend that the Commission seek at WRC-95 to enhance the allocations to NVNG satellite services made at WARC-92 by improving the international coordination processes. Such actions should help ensure that customer needs for these vital services can be met.

As part of the proceedings leading up to WRC-95, a Conference Preparatory Meeting ("CPM") was recently held in Geneva. ORBCOMM also wants to be sure that the Commission takes into account ORBCOMM's views on some of the CPM proposals in formulating a U.S. position for WRC-95. One change recommended by the CPM, consistent with the views of ORBCOMM, would be to adopt modifications to Footnote 608A. The modification would eliminate the $-150 \text{ dBW/m}^2/4 \text{ kHz}$ power flux density across a country's border as a limit, and instead would simply require international coordination through a coordination distance threshold method which has been recommended by the ITU-R working

^{2/} E.g., Comments of E-SAT at pp. 2-5; Comments of Leo One at pp. 2-11.

^{3/} ORBCOMM is continuing to review prospective frequency bands, as are the other NVNG satellite services applicants. To the extent that ORBCOMM is able through testing and evaluation to obtain additional information, it reserves the right to supplement its comments in this proceeding.

party 8D that has been studying this issue. The CPM determined that the $-150 \text{ dBW/m}^2/4 \text{ kHz}$ limit was unworkable, and should be replaced by more traditional coordination methods. ORBCOMM strongly urges the Commission to seek this refinement at WRC-95.

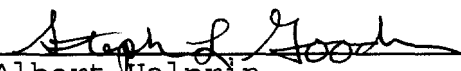
Also introduced at the CPM (by the French) was a proposal to significantly restrict non-geostationary satellite systems by reducing the existing, WARC-92 agreed $-125 \text{ dBW/m}^2/4 \text{ kHz}$ power flux density coordination threshold (measured at the Earth's surface) that applies to transmissions from a spacecraft in the 137-138 MHz band. The United States was successful in preventing the adoption of such a restrictive threshold at the CPM, and ORBCOMM urges the Commission to be vigilant at WRC-95 in also avoiding the adoption of the $-140 \text{ dBW/m}^2/4 \text{ kHz}$ power flux density coordination threshold suggested by the French, if it is proposed again at WRC-95.

Such a further restriction is unnecessary to avoid interference to other telecommunications systems in these frequencies. Moreover, such a standard would virtually force NVNG satellite systems to incorporate spread spectrum modulation techniques. As ORBCOMM has previously demonstrated, spread spectrum does not work effectively in the bands now allocated to NVNG satellite services; nor is it a very efficient modulation technique in these bands.^{4/}

^{4/} See e.g., Comments of ORBCOMM on the Starsys Petition for Rulemaking, July 19, 1990, at pp. 3-10 and Appendixes 1-3. In addition, independent analysis of the potential for spread spectrum in these frequencies was performed by others, and they similarly concluded that spread spectrum is not a viable modulation technique in the bands requested by ORBCOMM. E.g.,
(continued...)

In sum, ORBCOMM urges the Commission to build upon the successes of WARC-92, and to seek changes at WRC-95 that will help ensure the continuing development of NVNG satellite services on a global basis. By taking the actions suggested by ORBCOMM in its initial comments and these reply comments, the Commission will ensure that all of the benefits of low-Earth orbit satellite services can be realized in the United States, including the creation of new jobs, the provision of valuable services to unserved and underserved markets, and the development of export opportunities.

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Dated: April 14, 1995

4/(...continued)
Comments of Torrey Science & Technology Corporation, filed
June 17, 1991; Comments of the Satellite Communications Group at
Virginia Tech, filed June 17, 1991.

CERTIFICATE OF SERVICE

I, Katherine H. Rasdorf, hereby certify that the foregoing Reply Comments of ORBCOMM on the Second Notice of Inquiry were served by first-class mail, postage prepaid, this 14th day of April, 1995 on the following persons:

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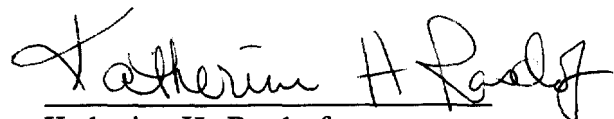
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